

REMARKS

The above-identified patent application has been amended and reconsideration and reexamination are hereby requested. This is a timely reply to the Office Action of January 22, 2002 with the requested three month extension. In the Office Action, the Examiner rejects all pending claims of the application. These rejections are traversed below.

CLAIM AMENDMENTS

Claim 1 has been amended to recite, in part, "aggregate attribute information indicating a start address, playback time and attributes of the unit audio information corresponding to the aggregate audio information recorded on the storage medium" (underlining indicates new text). Claims 4 and 10 have been similarly amended. Support for these amendments can be found in the specification on page 21, lines 12 - 25 and Fig. 6. The Applicants submit that these amendments do not add new matter to the application.

Claims 7 has been amended to additionally recite "the aggregate information table indicating a start address, playback time and attributes of the unit audio information." Claim 13 has been similarly amended. Claims 30 and 34 have been amended to additionally recite "the centralized audio attribute information table including a start address, playback time and attributes for each audio track from the audio attribute information." Support for these amendments can be found in the specification on page 21, lines 12 - 25 and Fig. 6. The Applicants submit that these amendments do not add new matter to the application. /

Claim 19 has been amended to include the limitations of Claim 20, which has been canceled. Therefore, the amendment to Claim 19 is supported by Claim 20, as originally filed. Claim 22 has been amended to be made an independent claim and to include the limitations of Claim 19, from which it previously depended, and Claim 20. Similarly, Claim 26 has been amended to be

made an independent claim and to include the limitations of Claim 19, from which it previously depended, and Claim 20. Therefore, the Applicants submit that the amendment to Claims 22 and 26 do not add new matter to the application.

Claims 38 - 43 have been added to the application. Support for new claims 38 - 43 may be generally found in the specification at page 19, line 15 to page 23, line 20, and in Figs. 3 - 6. More specific support for Claims 38 - 39 and 42 may be found in Fig. 6. More specific support for Claim 41 may be found at page 26, line 22 to page 36, line 9, and Figs. 8 and 9. More specific support for Claims 30 and 43 may be found at page 11, lines 26 - 29. Therefore, the Applicants submit that new Claims 38 - 43 do not add new matter to the application.

Claims 1- 15, 19, 21 - 37 remain in the application. New Claims 38 - 43 have been added to the application. The application now comprises 12 (twelve) independent claims and 39 (thirty-nine) total claims. The additional excess claim fees have been calculated as shown on the enclosed Excess Claim Fee paper.

DRAWING OBJECTIONS

In the Office Action, the Examiner objects to the drawings under 37 CFR 1.83(a). Specifically, the Examiner asserts that the drawings do not show the feature of a "table producing unit" as claimed in Claims 7 and 30. The Applicants submit that this feature is shown in the drawings.

Specifically, the specification describes, at page 40, lines 14 - 25, an embodiment of the invention in which the reproduction apparatus may be designed to produce the audio centralized information table. At page 40, lines 20 - 25, the specification states that:

... the system controller 100 refers to the VTS information in the video manager 2 to obtain the recording address of the VTA, and then moves to the address to obtain the audio attribute information included in the control data of the VTA.

Then, the contents of the audio attribute information is read out to produce table in the internal memory 100a. (Emphasis added).

Therefore, the specification discloses that the system controller 100 acts as a “table producing unit.” The system controller is depicted in Fig. 8. Therefore, the Applicants submit that the “table producing unit” is shown in the drawings. The Applicants respectfully request that the objection to the drawings under 37 CFR 1.83(a) be withdrawn.

CLAIM REJECTIONS

35 U.S.C. § 112, First Paragraph

In section 2 of the Office Action, the Examiner rejects Claims 1 - 3 and 19 - 29 under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Specifically, the Examiner asserts Claims 1 and 19 are drawn to an information storage medium, but none of the claims provide for any physical structure of the medium. The Examiner asserts that the limitations recited in the claims deal with the information found therein, but do not claim the specifics of the medium. Hence, the Examiner concludes that critical elements disclosed with respect to the medium are not provided in the claims.

The Applicants object to this rejection, as the Examiner appears to be engaging in piecemeal prosecution. That is, Claims 1 - 3, as originally filed, claimed an information structure in which features related to the physical structure of the medium were not claimed. In the First Office Action of April 14, 2000, the Examiner did not reject these claims under 35 U.S.C. 112, first paragraph. Claims 1 - 3 were not amended in response to that First Office Action. In the Final Office Action of November 3, 2000, the Examiner again did not reject Claims 1 - 3 under 35 U.S.C. 112, first paragraph. Claim 1 was amended in the Preliminary Amendment filed with the CPA for this application on May 2, 2001, but that amendment did not add or delete any subject matter related to the “physical structure of the medium.” However, after the extensive examination of Claims 1 - 3 in the first two Office Actions for this application, the Examiner now

chooses to reject claims 1- 3 on 35 U.S.C. 112, first paragraph grounds. The Applicants respectfully remind the Examiner that, under 37 C.F.R. 1.104(a), the “examination shall be complete with respect both to compliance of the application or patent under reexamination with the applicable statutes and rules and to the patentability of the invention as claimed”

Therefore, the Applicants respectfully request that the Examiner specifically provide the reasons why, at this late date, that Claims 1 - 3 are rejected under 35 U.S.C. 112, first paragraph, or that the Examiner withdraw the rejection of Claims 1 - 3 and 19 - 29 under 35 U.S.C. 112, first paragraph.

Further, the Applicants submit that the Examiner has not established a *prima facie* case for non-enablement of the claims rejected under 35 U.S.C. 112, first paragraph, that is, the Examiner has not “provided reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed.” See MPEP 2163, IIIA. The Examiner has relied upon *In re Mayhew*, 527 F.2d 1229, 1888 USPQ 356 (CCPA) 1976, in rejecting the claims under 35 U.S.C. 112, first paragraph. See also MPEP 2164.08(c). But MPEP 2164.08(c) also states that “an enablement rejection based on the grounds that a disclosed critical limitation is missing from a claim should be made only when the language of the specification makes it clear that the limitation is critical for the invention to function as intended.” (Emphasis added). Where does the specification make it clear that “the particular structure of the medium” is critical?

The specification states that the invention relates to an information storage medium, such as an optical disk. See page 1, lines 6 - 7. The specification further states that an object of the invention is “to provide an information storage medium from which recorded songs to be successively reproduced and having different audio attributes may be correctly and smoothly reproduced in conformity with the different attributes.” See page 3, lines 9 - 12. The specification describes “a physical structure and a logical structure as well as an operation of a DVD, as one embodiment of the information storage medium to which the present invention is

applied” (Emphasis added). See page 11, lines 4 - 6. Hence, the specification clearly states that the information storage medium may have multiple embodiments, and these embodiments may have different physical structures. Hence, the specification does not disclose that “the particular structure of the medium itself is also considered critical,” as asserted by the Examiner. Therefore, the Examiner has not established a *prima facie* case for non-enablement of Claims 1 - 3 and 19 - 29. The applicants respectfully request that the rejection of Claims 1- 3 and 19 - 29 based on 35 U.S.C. 112, first paragraph, be withdrawn.

35 U.S.C. § 112, Second Paragraph

The Examiner rejects Claims 22 - 29 under 35 U.S.C. 112, second paragraph as being indefinite. The Examiner asserts that Claims 22 and 26 are improper dependent claims and suggest that these claims be rewritten as independent claims. As discussed above, Claim 22 has been rewritten as an independent claim incorporating the limitations of Claim 19 from which Claim 22 previously depended and Claim 20, now canceled. Similarly, Claim 26 has been rewritten as an independent claim incorporating the limitations of Claim 19 from which Claim 26 previously depended and Claim 20, now canceled. Therefore, the Applicants submit that, due to these amendments, the rejection of Claims 22 - 29 under 35 U.S.C. 112, second paragraph, has been overcome.

35 U.S.C. 102

Section 4 of the Office Action

In section 4 of the Office Action, the Examiner rejects Claims 1 - 3 and 19 - 21 under 35 U.S.C. 102(e) as being anticipated by Heo. The Examiner refers to reasons for rejection cited in previous Office Actions. The Examiner also asserts that Heo’s description of the audio title information management table meets Applicants’ “aggregate attribute information.” However, the Applicants submit that Claims 1 and 19, as amended, are not anticipated by Heo.

As noted above, the Examiner asserts that Heo's audio title information management table teaches the "aggregate attribute information" claimed in Claim 1. Heo further describes that "wherein a first, second or third number of quantization bits, a corresponding first, second or third sampling frequency, and information relative to the number of audio channels are all recorded on the audio title information management table" See col. 12, lines 27 - 31. However, Claim 1, as amended, recites "aggregate attribute information indicating a start address, playback time and attributes of the unit audio information corresponding to the aggregate audio information recorded on the storage medium." The Applicants submit that Heo does not disclose ✓ this feature of Claim 1. If the Examiner asserts that this feature is disclosed in Heo, the Applicants respectfully request that the Examiner point out specifically where Heo discloses "aggregate attribute information indicating a start address, playback time and attributes of the unit audio information" as claimed in Claim 1, as amended. Otherwise, the Applicants respectfully request that the Examiner withdraw the rejection of Claim 1, as amended, and Claims 2 - 3, which depend on Claim 1, based on being anticipated by Heo.

With respect to Claim 19, the Examiner notes figures 5, 14 and 15. The Examiner also notes that while figure 5 only refers to one audio pack, there is "obviously" a plurality of audio packs present. However, to reject a claim under 35 U.S.C. 102, the anticipatory reference must teach each and every element as presented in the claim. Further, the Examiner is reminded that "when a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable." 37 C.F.R. 1.104(c)(2). The Examiner has not shown how each and every element of Claim 19 is disclosed in Heo.

Specifically, the Applicants submit that the Examiner has not shown where Heo discloses "a centralized audio attribute information area containing an aggregation of the audio attribute information from the plurality of audio management information areas" as claimed in Claim 19. At best, Heo appears to disclose a disk having multiple information areas each storing an audio

title information management table and not “a centralized audio attribute information area” as claimed in Claim 19.

Further, Claim 19 has been amended to incorporate the limitations of Claim 20, as described above. Therefore, the Applicants further submit that Heo does not teach, describe, or suggest the following limitations as claimed in Claim 19, as amended:

wherein the centralized audio attribute information area comprises one or more groups of grouped audio attribute information, each group of the grouped audio attribute information including:

- a group number;
- one or more track numbers;
- a start address and an end address of an audio track of the plurality of audio tracks corresponding with each track number; and
- audio attribute information of the audio track corresponding with each track number.

If the Examiner is of the opinion that Heo discloses each and every element of Claim 19, as amended and set forth above, the Applicants respectfully request that the Examiner point out where Heo teaches these elements. Otherwise, the Applicants respectfully request that the Examiner withdraw the rejection of Claim 19 and Claim 21, dependent on Claim 19, based on being anticipated by Heo.

Section 5 of the Office Action

The Examiner also rejects Claims 1 - 6 under 35 U.S.C. 102(e) as being anticipated by Moriyama. Specifically, the Examiner asserts that Moriyama teaches that the disclosed information storage mechanism has all types of information, including a plurality of audio information. Further, the Examiner interprets the phrase “unit audio” and “audio packs” to be the same. The Examiner also asserts that aggregate audio information, plurality of audio tracks, unit attribute information, and plurality of audio management information areas are found in Moriyama. Finally, the Examiner asserts that centralized audio attribute information area and aggregate attribute

information are found in reference to figure 14, item 14 d, and the attribute information 12 found in control section 11.

However, the Examiner is reminded that "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP 2131 quoting *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). Further, MPEP 2131 notes that the elements disclosed by the prior art reference must be arranged as required by the rejected claim. The Applicants submit that Moriyama does not disclose each and every element as set forth in the claims rejected by the Examiner under 35 U.S.C. 102(e).

The Examiner asserts that aggregate attribute information is found in Moriyama in reference to item 14d in Fig. 5 (described in Moriyama as "attribute information"). Moriyama further describes the structure of "attribute information" in Fig. 8. At col. 12, lines 16 - 43, Moriyama states that:

The attribute information 14d indicates the attributes of the respective audio streams, and includes a coding system of audio information 15h, multi-channel information 15i, audio type 15j, application type 15k, quantization bit number 15l, sampling frequency 15m and channel number 15n. The coding system 15h prescribes the coding system such as Dolby AC3, linear PCM and the like, and the multi-channel information 15i indicates the presence of the multi-channel audio stream attribute information 14h corresponding to the audio stream. The audio type 15j indicates whether or not the audio information includes languages (lyrics, etc.). The application type 15k indicates the purpose of the audio information if it is multi-channel information, and includes a karaoke-use, a audio-surround or the like. The quantization bit number 15l and the sampling frequency 15m indicate the quantization bit number and the sampling frequency of the audio information. The channel number 15n represents the channel number of the audio information.

The attribute information 14d includes application information 15p which contents is different dependently upon the application type 15k. For example, when the application type 15k indicates the karaoke-use, the application information 15p indicates the distribution manner of the audio signals to multiple

channels, the playing version, presence or absence of introduction part, which one of the solo play or duo play, etc. The attribute information 14d including the above described information are included for the number of audio streams.

Hence, Moriyama does not teach, disclose, or suggest “aggregate attribute information indicating a start address, playback time and attributes of the unit audio information corresponding to the aggregate audio information recorded on the storage medium” as claimed in Claim 1, as amended. (Emphasis added). Therefore, the Applicants submit that Claim 1, as amended, is allowable over Moriyama. Claims 2 and 3, dependent upon Claim 1, are allowable over Moriyama at least based upon their dependence on Claim 1.

In regard to Claims 4 - 6, the Examiner has not shown how Moriyama teaches each and every element of the rejected claims. For example, the Examiner has not shown how Moriyama teaches, “a reproduction unit . . . comprising: . . . an attribute change unit for starting an attribute setting of the unit audio information to be reproduced next immediately” as claimed in Claim 4. The Examiner has also not shown how many of the other limitations recited in Claim 4 are taught by Moriyama. Therefore, the Applicants submit that the Examiner has not established a *prima facie* case of anticipation of Claims 4 - 6 by Moriyama. The Applicants submit that each and every element recited in these claims is not taught by Moriyama, and that these claims are properly allowable over Moriyama. Hence, the Applicants respectfully request that the rejection of Claims 4 - 6 based on anticipation by Moriyama be withdrawn.

35 U.S.C. 103

Section 6 of the Office Action

In section 6 of the Office Action, the Examiner rejects Claims 4 - 15 under 35 U.S.C. 102(e) as being anticipated by Heo et al or, in the alternative, under 35 U.S.C. 103(a) as being unpatentable over Heo and further in view of either Yamamoto et al. or Yoshio et al. The Applicants submit

that Claims 4 - 15, as amended, are patentable over Heo and Heo in combination with either Yamamoto or Yoshio.

Claim 4 has been amended in a fashion similar to that of Claim 1. That is, Claim 4, as amended, recites, in part, “an information storage medium comprising: . . . aggregate attribute information indicating a start address, playback time and attributes of the unit audio information corresponding to the aggregate audio information recorded on the storage medium” (Emphasis added). Claim 10 has been similarly amended. As discussed above in regard to Claim 1, the Applicants submit that Heo does not teach, disclose or suggest the feature of “aggregate attribute information indicating a start address, playback time and attributes of the unit audio information” Therefore, the Applicants submit that Heo alone or the combination of Heo with Yamamoto or Yoshio does not teach each and every element of Claims 4 and 10, as amended, and Claims 4 and 10 are properly allowable over these references. Claims 5 and 6, dependent upon Claim 4, and Claims 11 and 12, dependent upon Claim 10, are allowable over these reference at least based upon their allowance on allowable base claims.

Claim 7 has also been amended in a fashion similar to that of Claims 1 and 4. That is, Claim 7, as amended, recites, in part, “. . . an aggregate attribute information table aggregating the unit attribute information collectively, the aggregate information table indicating a start address, playback time and attributes of the unit audio information” (Underlining indicates new text). Claim 13 has been similarly amended. As discussed above, the Applicants submit that neither Heo alone or the combination of Heo with Yamamoto or Yoshio teaches, discloses, or suggests this feature. Therefore, the Applicants submit that Claims 7 and 13 are allowable over these references. The Applicants further submit that Claims 8 and 9, dependent on Claim 7, and Claims 14 and 15, dependent on Claim 13, are allowable over these references at least based upon their dependence on allowable based claims.

Section 7 of the Office Action

In section 7 of the Office Action, the Examiner rejects Claims 4 - 15 under 35 U.S.C. 102(e) as being anticipated by Moriyama or, in the alternative, under 35 U.S.C. 103(a) as being made obvious by Moriyama in view of Yamamoto or Yoshio. As stated above, the Applicants submit that the Examiner has not established a *prima facie* case of anticipation of Claims 4 - 6 based upon Moriyama.

Further, the Applicants submit that neither Moriyama alone nor the combination of Moriyama with Yamamoto or Yoshio teaches, discloses, or suggests each and every element of Claims 4 - 15, as amended. As discussed above, the Applicants submit that Moriyama does not teach, disclose, or suggest, "aggregate attribute information indicating a start address, playback time and attributes of the unit audio information" as claimed in Claims 4 and 10, and similarly claimed in Claims 7 and 13. The Applicants further submit that the combination of Moriyama with Yamamoto or Yoshio also does not teach, disclose, or suggest this feature. Therefore, Claims 4, 7, 10, and 13 are properly allowable over Moriyama or the combination of Moriyama with either Yamamoto or Yoshio. The claims dependent upon these independent claims are allowable at least based upon their dependence on these allowable base claims.

Section 8 of the Office Action

In section 8 of the Office Action, the Examiner rejects Claims 22 - 29 under 35 U.S.C. 102(e) as being anticipated by Moriyama or, in the alternative, under 35 U.S.C. 103(a) as being made obvious by Moriyama in view of Heo. The Applicants submit that Claims 22 - 29, as amended, are patentable over Moriyama and Moriyama in combination with Heo.

Claims 22 and 26 have been amended to be made independent and to include the limitations of Claims 19 and 20. That is, Claims 22 and 26 have been amended to recite, in part,

... an information storage medium comprising:

- a plurality of audio packs, each audio pack containing one or more frames of audio data and associated audio pack attribute information;
- a plurality of audio tracks, each audio track comprising one or more audio packs;
- a plurality of audio management information areas, each audio management area containing audio attribute information for one or more audio tracks of the plurality of audio tracks; and
- a centralized audio attribute information area containing an aggregation of the audio attribute information from the plurality of audio management information areas, wherein the centralized audio attribute information area comprises one or more groups of grouped audio attribute information, each group of the grouped audio attribute information including:
 - a group number;
 - one or more track numbers;
 - a start address and an end address of an audio track of the plurality of audio tracks corresponding with each track number; and
 - audio attribute information of the audio track corresponding with each track number,

In the Office Action of January 22, 2002, the Examiner did not reject Claims 19 - 21 as being anticipated by Moriyama. Therefore, the Applicants submit that Moriyama does not teach these features from Claims 19 and 20, now incorporated into Claims 22 and 26. Further, as described above, the Applicants submit that Heo also does not teach these features from Claims 19 and 20. Hence, the Applicants submit that neither Moriyama alone nor the combination of Moriyama with Heo teaches, discloses, or suggests each and every element of independent Claims 22 and 26 and that these claims are properly allowable over these references. further, the Applicants submit that Claims 23 - 25, dependent on Claim 22, and Claims 27 - 29, dependent upon Claims 26, are allowable at least based upon their dependence on allowable base claims.

Section 9 of the Office Action

In section 9 of the Office Action, the Examiner rejects Claims 30 - 37 under 35 U.S.C. 102(e) as being anticipated by Moriyama or, in the alternative, under 35 U.S.C. 1039a) as being made

obvious by Moriyama in view of Heo. The Applicants submit that Claims 30 - 37, as amended, are patentable over Moriyama and Moriyama in combination with Heo.

The Examiner states that Claims 30 - 37 “require a table producing unit, and storing the centralized audio table produced thereby.” The Examiner admits that such elements can not be found in the Moriyama reference, but the Examiner considers such elements “as being inherently present, because the information contained in the video manager is considered to be in a ‘table’ format.” However, the Examiner is reminded, as stated in MPEP 2112, “in relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art” quoting *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). The Examiner has not shown why the feature of a “table producing unit . . . for producing an centralized audio attribute information table aggregating the audio attribute information collectively,” as claimed in Claim 30, and similarly claimed in Claim 34, necessarily flow the teachings of Moriyama.

The Examiner further states the use of the term “table” for this type of information is taught by Heo. However, the Examiner does not appear to assert that Heo teaches the feature of a “table producing unit . . . for producing an centralized audio attribute information table aggregating the audio attribute information collectively.” as claimed in Claim 30, and similarly claimed in Claim 34. The Applicants agree that Heo does not appear to contain such a teaching. As discussed above for the rejection of Claim 19, the Applicants again submit that Heo does not teach a “centralized audio attribute information area” and, therefore, Heo does not teach, describe or suggest a “centralized audio attribute information table aggregating the audio attribute information collectively” as claimed in Claims 30 and 34.

Therefore, if the Examiner maintains that it is inherent that the feature of a “table producing unit . . . for producing an centralized audio attribute information table aggregating the audio attribute information collectively” is inherently taught by Moriyama, the Applicant respectfully requests

that the Examiner provide a reference that supports such a conclusion, as described in MPEP 2131.01. If the Examiner is unable to provide such a reference, the Applicant respectfully requests that the Examiner provide an affidavit in support of the assertion, as provided by 37 C.F.R. 104(d)(2). 37 C.F.R. 104(d)(2) states, in part, that “when a rejection in an application is based on facts within the personal knowledge of an employee of the Office, the data shall be specific as possible, and the reference must be supported, when called for by the applicant, by the affidavit of such employee.” If the Examiner is unable to provide the requested reference or affidavit, the Applicant respectfully requests that the rejection of Claims 30 - 37 be withdrawn.

The Applicants further submit that Claims 30 and 34 are distinguished from Moriyama or the combination of Moriyama with Heo by the feature of “the centralized audio attribute information table including a start address, playback time and attributes for each audio track from the audio attribute information” recited in Claims 30 and 34, as amended. The Applicants submit that Moriyama or the combination of Moriyama with Heo do not teach, disclose, or suggest this feature as discussed above. Therefore, the Applicants submit that Claims 30 and 34 are allowable over these reference. Claims 31 - 33, dependent on Claim 30, and Claims 35 - 37, dependent on Claim 34, are allowable over these references at least based upon their dependence on allowable base claims.

Patentability of New Claims

New Claim 38 recites, in part “a second recording area in which centralized audio attribution information of a plurality of tracks is to be recorded” and “wherein the centralized audio attribution information includes a start address, playback time and attribute of each of the tracks.” Claim 40 recites similar subject matter in part. The Applicants submit that the references cited by the Examiner do not teach, disclose or suggest, either alone or in combination, these features. Further, the Applicants submit that the cited references do not teach, disclose, or suggest the feature of “the centralized audio attribute information further includes a group number and a track number of the track” as recited in new Claims 39 and 41. Finally, the

Applicants submit that the cited references do not teach, disclose or suggest "wherein the second recording area includes menu data for presenting a menu of contents recorded in the information storage medium" as claimed in Claims 39 and 42. Therefore, the Applicants submit that new Claims 38 - 43 are patentable over the references which have been cited.

CONCLUSION

Hence, the Applicant respectfully submits that all claims of the application, as amended, are patentable over the references. In view of the above, reconsideration and allowance of the pending claims, as amended, are respectfully solicited.

The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account no. 12-0415. In particular, if this response is not timely filed, the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 12-0415.

I hereby certify that this correspondence is being deposited with the United States Post Office with sufficient postage as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C., 20231 on

July 12, 2002
(Date of Deposit)

Ross A. Schmitt
(Name of Person Transmitting)


(Signature)

7-12-2002
(Date)

Respectfully submitted,



Ross A. Schmitt
Attorney for Applicants
Reg. No. 42,529
LADAS & PARRY
5670 Wilshire Boulevard, Suite 2100
Los Angeles, California 90036
(323) 934-2300

1. (Twice Amended) An information storage medium comprising:
a plurality of unit audio information to be reproduced independently of each other;
aggregate audio information each including one or more of the unit audio information;
unit attribute information indicating attributes of the unit audio information included in
the aggregate audio information; and
aggregate attribute information [including information which has the same contents]
indicating a start address, playback time and attributes of the unit [attribute] audio
information corresponding to the aggregate audio information recorded on the
storage medium[, collectively recorded at a location where no aggregate audio
information is recorded].

4. (Twice Amended) A reproduction apparatus for an information storage medium, the
information storage medium comprising:
a plurality of unit audio information to be reproduced independently of each other;
aggregate audio information each including one or more of the unit audio information;
unit attribute information indicating attributes of the unit audio information included in
the aggregate audio information; and
aggregate attribute information [including information which has the same contents of the
unit attribute information] indicating a start address, playback time and attributes
of the unit audio information corresponding to the aggregate audio information
recorded on the storage medium, [collectively recorded at a location where no
aggregate audio information is recorded,]
and the apparatus comprising:
a reading unit for reading information from the information storage medium;
a storage unit for storing the aggregate attribute information read by the reading unit;
an input unit for receiving, from a user, a reproduction instruction designating a plurality
of unit audio information to be reproduced successively; and
a reproduction unit for setting the attribute for the reproduction based on the aggregate
attribute information stored in the storage unit and for reproducing the unit audio
information designated by the user in accordance with the attribute set,
wherein said reproduction unit comprising:
an obtaining unit for obtaining the attribute corresponding to each of the plurality
of unit audio information designated by the user from the aggregate
attribute information stored in the storage unit;
a determining unit for determining whether or not the obtained attributes of the
unit audio information to be successively reproduced are identical; and
an attribute change unit for starting an attribute setting of the unit audio
information to be reproduced next immediately after the reproduction of
the unit audio information currently reproduced, if the determining unit
determines that the attributes are different.

7. (Twice Amended) A reproduction apparatus for an information storage medium, the information storage medium comprising:
a plurality of unit audio information to be reproduced independently of each other;
aggregate audio information each including one or more of the unit audio information; and
unit attribute information indicating attributes of the unit audio information included in the aggregate audio information, and
the apparatus comprising:
a reading unit for reading information from the information storage medium;
a table producing unit for obtaining the unit attribute information corresponding to the aggregate audio information recorded on the storage medium from the reading unit and for producing an aggregate attribute information table aggregating the unit attribute information collectively, the aggregate information table indicating a start address, playback time and attributes of the unit audio information;
a storage unit for storing the aggregate attribute information table produced by the table producing unit;
an input unit for receiving, from a user, a reproduction instruction designating a plurality of the unit audio information to be reproduced successively; and
a reproduction unit for setting the attribute for the reproduction based on the aggregate attribute information table stored in the storage unit and for reproducing the unit audio information designated by the user in accordance with the attribute set, wherein said reproduction unit comprising:
an obtaining unit for obtaining the attributes corresponding to each of the plurality of unit audio information designated by the user from the aggregate attribute information table stored in the storage unit;
a determining unit for determining whether or not the obtained attributes of the unit audio information to be successively reproduced are identical; and
an attribute change unit for starting an attribute setting of the unit audio information to be reproduced next immediately after the reproduction of the unit audio information currently reproduced, if the determining unit determines that the attributes are different.
10. (Twice Amended) A reproduction method of an information storage medium, the information storage medium comprising:
a plurality of unit audio information to be reproduced independently of each other;
aggregate audio information each including one or more of the unit audio information;
unit attribute information indicating attributes of the unit audio information included in the aggregate audio information; and
aggregate attribute information [including information which has the same contents of the unit attribute information] indicating a start address, playback time and attributes of the unit audio information corresponding to the aggregate audio information

recorded on the storage medium, [collectively recorded at a location where no aggregate audio information is recorded,]

and the method comprising the steps of:

reading the aggregate attribute information from the information storage medium to store the read information into a storage unit;

receiving, from a user, a reproduction instruction designating a plurality of unit audio information to be reproduced successively;

setting the attribute for the reproduction based on the aggregate attribute information stored in the storage unit; and

reproducing the unit audio information designated by the user in accordance with the attribute set, wherein said reproducing step comprising the steps of:

obtaining the attributes corresponding to each of the plurality of unit audio information designated by the user from the aggregate attribute information stored in the storage unit;

determining whether or not the attributes of the unit audio information to be reproduced successively are identical; and

starting an attribute setting of the unit audio information to be reproduced next immediately after the reproduction of the unit audio information currently reproduced, if it is determined in the determining step that the attributes are different.

13. (Twice Amended) A reproduction method of an information storage medium, the information storage medium comprising:

a plurality of unit audio information to be reproduced independently of each other;

aggregate audio information each including one or more of the unit audio information; and

unit attribute information indicating attributes of the unit audio information included in the aggregate audio information,

and the method comprising:

reading the unit attribute information corresponding to the aggregate audio information recorded on the storage medium to produce an aggregate attribute information table [aggregating the unit attribute information collectively], the aggregate attribute information table indicating a start address, playback time and attributes of the unit audio information;

storing the aggregate attribute information table produced into a storage unit;

receiving, from a user, a reproduction instruction designating a plurality of unit audio information to be reproduced successively;

setting the attribute for the reproduction based on the aggregate attribute information table stored in the storage unit; and

reproducing the unit audio information designated by the user in accordance with the attribute set, wherein said reproducing step comprising the steps of:

obtaining the attributes corresponding to each of the plurality of unit audio information designated by the user from the aggregate attribute information table stored in the storage unit;
determining whether or not the attributes of the unit audio information to be successively reproduced are identical; and
starting an attribute setting of the unit audio information to be reproduced next immediately after the reproduction of the unit audio information currently reproduced, if it is determined in the determining step that the attributes are different.

19. (Amended) An information storage medium comprising:
a plurality of audio packs, each audio pack containing one or more frames of audio data and associated audio pack attribute information;
a plurality of audio tracks, each audio track comprising one or more audio packs;
a plurality of audio management information areas, each audio management area containing audio attribute information for one or more audio tracks of the plurality of audio tracks; and
a centralized audio attribute information area containing an aggregation of the audio attribute information from the plurality of audio management information areas,
wherein the centralized audio attribute information area comprises one or more groups of grouped audio attribute information, each group of the grouped audio attribute information including:
a group number;
one or more track numbers;
a start address and an end address of an audio track of the plurality of audio tracks corresponding with each track number; and
audio attribute information of the audio track corresponding with each track number.
20. (Canceled) The information storage medium according to Claim 19, wherein the centralized audio attribute information area comprises one or more groups of grouped audio attribute information, each group of the grouped audio attribute information including:
a group number;
one or more track numbers;
a start address and an end address of an audio track of the plurality of audio tracks corresponding with each track number; and
audio attribute information the audio track corresponding with each track number.

22. (Amended) A reproduction apparatus for [the] an information storage medium, the information storage medium [according to Claim 19,] comprising:
a plurality of audio packs, each audio pack containing one or more frames of audio data and associated audio pack attribute information;
a plurality of audio tracks, each audio track comprising one or more audio packs;
a plurality of audio management information areas, each audio management area containing audio attribute information for one or more audio tracks of the plurality of audio tracks; and
a centralized audio attribute information area containing an aggregation of the audio attribute information from the plurality of audio management information areas, wherein the centralized audio attribute information area comprises one or more groups of grouped audio attribute information, each group of the grouped audio attribute information including:
a group number;
one or more track numbers;
a start address and an end address of an audio track of the plurality of audio tracks corresponding with each track number; and
audio attribute information of the audio track corresponding with each track number.
and the reproduction apparatus [comprising] comprises:
a reading unit for reading information from the information storage medium;
a storage unit for storing the aggregation of audio attribute information read by the reading unit;
an input unit for receiving, from a user, a reproduction instruction designating a plurality of designated audio tracks to be reproduced successively; and
a reproduction unit for setting audio attributes for the reproduction of the designated audio tracks based on the aggregation of audio attribute information stored in the storage unit and for reproducing the designated audio tracks in accordance with the audio attributes set.
26. (Amended) A reproduction method for [the] an information storage medium [according to Claim 19], the information storage medium comprising:
a plurality of audio packs, each audio pack containing one or more frames of audio data and associated audio pack attribute information;
a plurality of audio tracks, each audio track comprising one or more audio packs;
a plurality of audio management information areas, each audio management area containing audio attribute information for one or more audio tracks of the plurality of audio tracks; and
a centralized audio attribute information area containing an aggregation of the audio attribute information from the plurality of audio management information areas.

wherein the centralized audio attribute information area comprises one or more groups of grouped audio attribute information, each group of the grouped audio attribute information including:

a group number;

one or more track numbers;

a start address and an end address of an audio track of the plurality of audio tracks corresponding with each track number; and

audio attribute information of the audio track corresponding with each track number.

and the method comprising the steps of:

reading the aggregation of audio attribute information from the centralized audio information area on the information storage medium;

storing the aggregation of audio attribute information in a storage unit;

receiving, from a user, a reproduction instruction designating a plurality of designated audio tracks to be reproduced successively;

setting the audio attributes for the reproduction of the designated audio tracks based on the aggregation of audio information stored in the storage unit; and

reproducing the designated audio tracks in accordance with the audio attributes set.

30. (Amended) A reproduction apparatus for an information storage medium, the information storage medium comprising:

a plurality of audio packs, each audio pack containing one or more frames of audio data and associated audio pack attribute information;

a plurality of audio tracks, each audio track comprising one or more audio packs;

a plurality of audio management information areas, each audio management area containing audio attribute information for one or more audio tracks of the plurality of audio tracks,

and the reproduction apparatus comprising:

a reading unit for reading information from the information storage medium;

a table producing unit for obtaining the audio attribute information from one or more of the audio management information areas and for producing an centralized audio attribute information table aggregating the audio attribute information collectively, the centralized audio attribute information table including a start address, playback time and attributes for each audio track from the audio attribute information;

a storage unit for storing the centralized audio information table produced by the table producing unit;

an input unit for receiving, from a user, a reproduction instruction designating a plurality of designated audio tracks to be reproduced successively; and

a reproduction unit for setting the audio attributes for the reproduction based on the centralized audio attribute information table stored in the storage unit and for

reproducing the designated audio tracks in accordance with the audio attributes set.

34. (Amended) A reproduction method of an information storage medium, the information storage medium comprising:
- a plurality of audio packs, each audio pack containing one or more frames of audio data and associated audio pack attribute information;
 - a plurality of audio tracks, each audio track comprising one or more audio packs;
 - a plurality of audio management information areas, each audio management area containing audio attribute information for one or more audio tracks,
- and the method comprising:
- reading the audio attribute information from one or more audio management information areas of the plurality of audio management information areas to produce an centralized audio attribute information table containing an aggregation of the audio attribute information, the centralized audio attribute information table including a start address, playback time and attribute for each audio track from the audio attribute information;;
 - storing the centralized audio attribute information table produced into a storage unit;
 - receiving, from a user, a reproduction instruction designating a plurality of designated audio tracks to be reproduced successively;
 - setting the audio attributes for the reproduction of the designated audio tracks based on the centralized audio attribute information table stored in the storage unit; and
 - reproducing the designated audio tracks in accordance with the audio attributes set.